

THE UNITED STAYIES OF AMIERICA

To all to whom these presents sual come: Holden's Joundation Seeds L. L. C.

MICCOLS, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT. THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE LIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR OPTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE EPURIOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT SEED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

CORN, FIELD

'LH390'

In Vestimon Morreof, I have hereunto set my hand and caused the seal of the Hunt Hariety Frotection Office to be affixed at the City of Washington, D.C. this twenty-ninth day of April, in the year two thousand and eight.

Colmand T: Schafer

ctary of Agriculture

Allost:

Denz-

Commissioner Plant Variety Protection Office Agricultural Marketing Sorvice

Zea mays	Graminae	HYBRID? □ YES X NO	
18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse) 2. X Exhibit A. Origin and Breeding History of the Variety	19. DOES THE OWNER SPECIFY THAT SEED CERTIFIED SEED? See Section 83(a) o	f the Plant Variety Protection Act)	
b. X Exhibit B. Statement of Distinctness c. X Exhibit C. Objective Description of Variety d. Exhibit D. Additional Description of the Variety (Optional)	20. DOES THE OWNER SPECIFY THAT SEED VARIETY SE LIMITED AS TO NUMBER OF	OF THIS	ОИ С
e. X Exhibit E. Statement of the Basis of the Owner's Ownership f. X Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) g. X Filing and Examination Fee (\$3,652), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)	21. DOES THE OWNER SPECIFY THAT SEED VARIETY BE LIMITED AS TO NUMBER OF IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOUNDATION REGISTERED (If additional explanation is necessary, please	OF THIS YES (GENERATIONS? FOR EACH CLASS. CERTIFIED	DERTIFIED NO
22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? X YES	23. IS THE VARIETY OR ANY COMPONENT OF PROPERTY RIGHT (PLANT BREEDER'S RIFYES, PLEASE GIVE COUNTRY, DATE OF REFERENCE NUMBER. (Please use space)	IGHT OR PATENT)? X NO FILING OR ISSUANCE AND ASSIGNE	
24. The owners declare that a viable sample of basic seed of the variety has been furnished with applica	tion and will be replenished upon request in accord	ance with such regulations as may be ap	plicable, or

for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER WITH R	10	SIGNATURE OF OWNER	
NAME (Please print or type) Timothy R. Kain		NAME (Please print or type)	
CAPACITY OR TITLE Patent Scientist	DATE 10/2.	CAPACITY OR TITLE	DATE

ST-470 (02-10-2003) designed by the Plant Variety Protection Office using Word 2000. Replaces former versions of ST-470, which are obsolute.

See reverse for instructions and information collection burden statement

INSTRUCTIONS

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$3,652 (\$432 filing fee and \$3,200 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$432 for Issuance of the certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office Telephone: (301) 504-5518 FAX: (301) 504-5291

Homepage: http://www.ams.usda.gov/science/pvpo/pvp.htm

ITEM 18a. Give:

- (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
- the details of subsequent stages of selection and multiplication;
- (3) evidence of uniformity and stability; and
- (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
 - (1) identify these varieties and state all differences objectively;
 - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
- 19. If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
- 22. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
- 23. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.
- 21. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)

22. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

Sold in U.S. - December 2004

23. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filling a change of address. The fee for filling a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center--East, Beltsville, MD 20705. Telephone: (301) 504-8089. http://www.ams.usda.gov/lsg/seed.htm

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 3.0 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

ST-470 (02-10-2003) designed by the Plant Variety Protection Office with Word 2000. Replaces former versions of ST-470, which are obsolete.

EXHIBIT A

Origin and Breeding History LH390

LH390 was developed from the single cross of LH167 x LH185 by selfing and using the conventional ear-to-row system of plant breeding. Yield, stalk quality, root quality, disease tolerance, late plant greenness, late plant intactness, ear retention, pollen shedding ability, silking ability and corn borer tolerance were the criteria used to determine the rows from which ears were selected during the development of LH390.

LH167 and LH185 the progenitors of LH390, are both proprietary field corn inbred lines of Holden's Foundation Seeds, L.L.C., of Williamsburg, Iowa.

Winter 1992-93	The inbred line LH167 (a proprietary Holden's inbred) was crossed to the inbred line LH185 (a proprietary Holden's inbred) in Hawaii Field/Row 34429-34426.
Summer 1993	The seed of the cross of LH167 x LH185 was grown ear-to-row and backcrossed to inbred line LH185 in nursery row 31258 in Iowa.
Summer 1994	S0 ears were grown ear-to-row and self-pollinated in nursery range/row 9060 in lowa.
Summer 1998	S1 ears were grown ear-to-row and self-pollinated in nursery row 8155 at lowa.
Winter 1998-99	S2 ears were grown ear-to-row in Hawaii in nursery row 6058.
Summer 1999	S3 ears were grown ear-to-row in nursery row 5115 at Iowa.
Winter 1999-2000	S4 ears were grown ear-to-row and self-pollinated in nursery row 2437 at Mexico.
Summer 2000	S5 ears were grown ear-to-row and self-pollinated in nursery row 39757 at lowa.
Winter 2000-2001	S6 ears were grown ear-to-row and self-pollinated in nursery row 4138 at Mexico.
Summer 2001	S7 ears were grown ear-to-row and self-pollinated in nursery row 43197 at lowa.
Summer 2002	S8 ears were grown ear-to-row and self-pollinated in nursery row 54090 at lowa
Summer 2004	S10 ears were grown ear-to-row and self-pollinated and final selection made in lowa nursery row/field Vernon Schmidt. Line coded LH390.

Statement of Stability and Uniformity

LH390 has shown uniformity and stability for all traits described in Exhibit C. It has been self-pollinated and ear-rowed for four generations, with careful attention to uniformity of plant type to ensure homozygosity and phenotypic stability.

Statement of Variants

The line is stable, uniform and no variant traits have been observed or are anticipated in LH390.

EXHIBIT B

Statement of Distinctness

Holden's Foundation Seeds L.L.C. believes that Corn Variety LH390 is most similar to Corn Variety LH167, an inbred developed by Holden's Foundation Seeds L.L.C.

Corn Variety LH390 differ from Corn Variety LH167 at the following traits:

Trait	LH390	LH167
Anther Color	Green-Yellow (2.5 GY 8/6)	Dark Yellow (7.5 YR 7/10)
Silk Color	Green-Yellow (2.5 GY 8/8)	Green (5 GY 4/8)

Description of Experimental Design

The corn varieties LH390, LH167 and CM105 were grown at the Waterman, IL observation nursery in years 2004-2005. The varieties were planted in 2 row plots with 15 plants per row in each of the three years. Trait data were collected on 10 random representative plants for most traits from each 2 row plot. Data on qualitative traits are usually collected on 10 plants from each 2 row plot. For Exhibit C all data were pooled and reported as means across the years for subject variety and the standard variety with standard deviation. The varieties are randomly planted in a 4.5 acre observation nursery which is located within a larger 18 acre field. Besides the observation nursery, this field consists of a research seed increase nursery and an IP seed inventory nursery. The location of each of these individual nurseries is rotated each year to a different location within the 18 acre field. Therefore subject inbreds are not planted adjacent to comparative or standard varieties and may be located in different areas of the larger field each year, therefore being influenced by spacial differences within the field. Growing conditions within the field are not uniform as there are some slight topographical variations such as lower areas which may accumulate and retain water or higher areas which are usually drier. The field is tiled and therefore a variety maybe planted close to a tile line while a comparative variety maybe planted further away and in a low spot within the field. Temporal varieties can exist as weather conditions from year to year can vary as well as planting dates can vary from year to year based on weather conditions. Weather conditions each year can vary the maturity rate of the varieties due to either favorable or unfavorable growing conditions.

Trait variability is not observed for each variety within its own test plot-plants are usually uniform and data are collected on the "most" representative plants- variability occurs due to spacial location of the test plot for that variety from year to year and to the temporal variation of weather conditions from year to year during the 2-3 years data are collected.

EXHIBIT B (cont'd)

Waterman Research Station Weather Data 2004-2005

	Date	Average	Ave. Monthly	Ave. Monthly	Ave. Monthly	Ave. Monthly
1		Precip.	Temp – Max.	Temp-Min	Rel. Humid	Rel. Humid –
L		(mm)	(F°)	(F°)	Max (%)	Min (%)
L	June 2004	3.1	76.4	56.8	92.8	50.6
L	July 2004	3.2	79.3	59.2	94.9	55.9
L	August 2004	3.0	75.4	54.7	95.8	55.3
	Sept. 2004	0.5	78.1	51.6	95.0	43.1
L	June 2005	0.9	84.7	61.3	89.8	41.7
L	July 2005	2.0	84.9	61.7	93.4	44.7
	August 2005	2.5	82.6	60.4	94.9	50.0
L	Sept 2005	1.8	79.9	55.0	94.3	44.3

United States Department of Agriculture, Agricultural Marketing Service Science and Technology, Plant Variety Protection Office National Agricultural Library Building, Room 400 Beltsville, MD 20705-2351

OBJECTIVE DESCRIPTION OF VARIETY CORN (Zea mays L.)

**************************************	CORN (Zea ma	ys L.)				
Name of Applicant(s)		Variety Seed Source	e V	/ariety Name or Tempora	ary Designation	
Holden's Foundation Seed L.L.C.				LH390		
Address (Street & No., or R.F.D. No., City, State, Zip Code and Country)		F	OR OFFICIAL USE	PVPO Number	
8350 Minnegan Road, Waterman, IL 60556				20060	20018	
Place the appropriate number that describes the varietal characters typic necessary. Completeness should be striven for to establish an adequate	cal of this inbred variety a variety description.	n the spaces below. R	ight justify wh			
COLOR CHOICES (Use in conjunction with Munsell color code to descri 01=Light Green 06=Pale Yellow 02=Medium Green 07=Yellow 03=Dark Green 08=Yellow-Orange 04=Very Dark Green 09=Salmon 05=Green-Yellow 10=Pink-Orange	be all color choices; des 11=Pink 12=Light Red 13=Cherry Red 14=Red 15=Red & White	16=Pale 17=Purp 18=Cold 19=Whit 20=Whit	e Purple ole orless te te Capped	21=Buff 22=Tan 23=Brown 24=Bronze 25=Variegate 26=Other (
STANDARD INBRED CHOICES (Use the most similar (in background and maturity) of these to make comparisons based on grow-out trial data): Yellow Dent Families: Yellow Dent (Unrelated): Sweet Corn: Family B14 Members Co109, ND246, C13, lowa5125, P39, 2132 B17 B17, F76, H84 W117, W153R Popcorn: B18 N192, A679, B73, NC268 W182BN SG1533, 4722, HP301, HP7211 C103 Mo17, Va102, Va35, A682 White Dent: Pipecorn: Oh43 A619, MS71, H99, Va26 White Dent: Pipecorn: WF9 W64A, A554, A654, Pa91 Cl66, H105, Ky228 Mo15W, Mo16W, Mo24W					301, HP7211	
TYPE: (describe intermediate types in Comments section) St				tandard Inbred Name CM105		
2 1=Sweet 2=Dent 3=Flint 4=Flour 5=Pop 6=Omamental 7=F	Pipecorn		2 Type			
2. REGION WHERE DEVELOPED IN THE U.S.A.:			Standard Seed Source			
2 1=Northwest 2=North central 3=Northeast 4=Southeast	5=South central 6=So	uthwest 7=Other	2 Region		i	
MATURITY (In Region Best Adaptability; show Heat Unit formula in "C DAYS HEAT UNITS	silk		DAY: 68	1400.5	·	
From 10% to 90% pollen shed						
From 50% silk to optimum edible qu	•			<u> </u>	_	
From 50% silk to harvest at 25% mo	isture					
4. PLANT:	Standard Deviation	Sample Size	Mea	an Standard Dev	iation Sample Size	
1 7 7. 6 cm Plant Height (to tassel tip)	9.7	30	16	60.5 24.6	30	
4 5.8 cm Ear Height (to base of top ear node)	6.6	30	49	9.4 12.0	30	
1 5. 9 cm Length of Top Ear Internode	1.4	30	1	1.7 2.0	30	
Average Number of Tillers						
1.0 Average Number of Ears per Stalk	0.1	30	1	.0 0.1	15	
2 Anthocyanin of Brace Roots: 1=Absent 2=Faint 3=Mode	erate 4=Dark		2			
Application Variety Data	Page 1		Standard I	nbred Data		

Application Variety Data	Page 2		Standard Inbred	d Data	
5. LEAF:	Standard Deviation	Sample Size	Mean	Standard Deviation	Sample Size
8 . 7 cm Width of Ear Node Leaf	1.3	30	7. 1	0.7	30
6 0. 3 cm Length of Ear Node Leaf	3.6	30	6 6. 7	9.6	30
4.5 Number of leaves above top ear	0.6	30	5. 7	0.6	15
1 9. 9 degrees Leaf Angle (measure from 2nd leaf above ear at anthe	1.5 sis to stalk above leaf)	30	4 7.8	7.0	30
0 2 Leaf Color (Munsell code 5 GY 4/8)			0 2 (Munsel	l code 5 GY 4/8)	
1 Leaf Sheath Pubescence (Rate on scale from 1=none to 9=like peach fuzz)			2		
4 Marginal Waves (Rate on scale from 1=no	ne to 9=many)		6		
5 Longitudinal Creases (Rate on scale from	1=none to 9=many)		5		
6. TASSEL:	Standard Deviation	Sample Size	Mean	Standard Deviation	Sample Size
4.4 Number of Primary Lateral Branches	1.2	30	5. 3	1.2	30
2 9. 8 Branch Angle from Central Spike	13.8	30	3 3.2	9.0	30
3 0. 6 cm Tassel Length (from top leaf collar to tassel tip)	2.4	30	3 4.4	2.6	30
5.8 Pollen Shed (Rate on scale from 0=male ste	rile to 9=heavy shed)		6 .2		
0 5 Anther Color (Munsell code 2.5 GY 8/6)			0 7 (Muns	sell code 2.5 Y 8/10)	•
0 2 Glume Color (Munsell code 5 GY 4/8)			1 2 (Muns	eli code 2.5 R 5/8)	
1 Bar Glumes (Glume Bands): 1=Absent 2=Pr	esent		1	•	
7a. EAR (Unhusked Data):					
0 5 Silk Color (3 days after emergence) (Munsell co	de 2.5 GY 8/8)		0 7 (Munse	ell code 2.5 Y 8/10)	
0 2 Fresh Husk Color (25 days after 50% silking) (M	unself code 5 GY 4/8)		0 2 (Munse	ell code 5 GY 4/8)	
2 1 Dry Husk Color (65 days after 50% Silking) (Mun	sell code 2.5 Y 8/4)		2 1 (Muns	ell code 2.5 Y 8/4)	
1 Position of Ear at Dry Husk Stage: 1=Upright 2=h	forizontal 3=Pendent		1		
9 Husk Tightness (Rate on scale from 1=very loose	e to 9=very tight)		9		
1 Husk Extension (at harvest): 1=Short (ears expos tip) 4=Very Long (>10 cm)	sed) 2=Medium (<8 cm) 3=Long (8	-10 cm beyond ear	1		
b. EAR (Husked Ear Data):	Standard Deviation	Sample Size	Mean	Standard Deviation	Sample Size
1 3. 7 cm Ear Length	1,2	30	1 4.0	1.6	30
3 7. 4 mm Ear Diameter at mid-point	1.7	30	3 8.0	1.4	15
9 3.7 gm Ear Weight	3.9	30	7 3. 2	1.9	15
10.5 Number of Kernel Rows	0.8	30	1 3.9	0.9	15
2 Kernel Rows: 1=Indistinct 2=Distinct			2		
2 Row Alignment: 1=Straight 2=Slightly Curve	d 3=Spiral		1		
6.4 cm Shank Length	1.9	30	6.8	2.0	15
2 Ear Taper: 1=Slight 2=Average 3=Extreme			2		
			†··		

Application Va	ariety Data	Page 3		Standard Inbred	- Data	
8. KERNEL ((Dried):	Standard Deviation	Sample Size	Mean	Standard Deviation	Sample Size
10.	3 mm Kernel Length	0.7	30	0 9.2	1.0	15
9.1	mm Kernel Width	0.6	30	0 8.2	0,6	15
4.7	mm Kernel Thickness	1.2	30	0 5.1	1.2	15
2 6.9	% Round Kernels (Shape Grade)	0.9	500g	56.8	2.6	
	1 Aleurone Color Pattern: 1=Homozygous 2=Segrega		5509	1	2.0	500g
19					ell code Lighter Than 2.5	V 0/2)
26 (orange)		,			ell code 2.5 Y 8/8)	1 9/2)
3	Endosperm Type: 1=Sweet (su1) 2=Extra Sweet (s 5=Waxy Starch 6=High Protein 7=High Lysine 10=Other	h2) 3=Normal Starch 4 8=Super Sweet (se)	=High Amylose Starch 9=High Oil	0 3	M 6546 2.5 1 May	
31.0	gm Weight per 100 Kernels (unsized sample)	2.1	1450 seeds	2 2.5	2.6	2000 seeds
9. COB;		Standard Deviation	Sample Size	Mean	Standard Deviation	Sample Size
20.3	mm Cob Diameter at mid-point	1.0	30	2 6.2	1.3	15
1 9	Cob Color (Munsell code Lighter than 5 Y 9/1)			1 4 (Muns	ell code 5 R 4/10)	
A Leaf Blights Anthracnor Common F Common F Goss's Wif Gray Leaf Helminthos Northern L Southern R Stewart's V Other (Spe B. Systemic Dir Head Smut Head Smut Maize Chlor Maize Chlor Maize Dwar Sorghum Do Other (Spec C. Stalk Rots Anthracnose Diplodia Stal Fusarium Sta Gibberella S Other (Special Cother (Special Fusarium Stal Fusarium Stal Gibberella S Other (Special D. Ear and Kern Aspergillus E Diplodia Ear	Necrosis (MCMV and MDMV) (Sphacelotheca reiliana) rotic Dwarf Virus (MCDV) rotic Mottle Virus (MCMV) f Mosaic Virus (MDMV) owny Mildew of Corn (Peronosclerospora sorghi) ify) e Stalk Rot (Colletotrichum graminicola) lk Rot (Stenocarpella maydis) alk Rot (Fusarium moniliforme) talk Rot (Gibberella zeae) ify)	Race _ Race _ Race _		3 Northern Leaf 6 Southern Leaf Southern Ru- 4 Stewart's Wilt Other (Specif Corn Lethal N Head Smut Maize Chloro Maize Chloro Maize Dwarf Sorghum Dov Other (Specif Anthracnose Diplodia Stalk Fusarium Sta Gibberella Sta Other (Specif	st nut ot rium Leaf Spot	Race 1 Race O
Other (Specif	ar Rot (<i>Gibberella zeae</i>) fy)			Gibberella Ea Other (Specify		
Application Varie	ety Data	100.0		Standard Inbred D		
Note: Use chart of	on first page to choose color codes for color traits.	· 	L	<u> </u>		

200600018

Application Variety Data Page 4	Standard Inbred Data
11. INSECT RESISTANCE (Rate from 1 (most susceptible) to 9 (most resistant); leave blank if not tested): Standard Deviation Sample Size	Standard Deviation Sample Size
Banks Grass Mite (Oligonychus pratensis)	Banks Grass Mite
Corn Earworm (<i>Helicoverpa zea</i>) Leaf-Feeding Silk Feeding : mg larval wt Ear Damage	Corn Earworm Leaf Feeding Ear Damage
Corn Leaf Aphid (<i>Rhopalosiphum maidis</i>) Corn Sap Beetle (<i>Carpophilus dimidiatus</i>)	Corn Leaf Aphid Corn Sap Beetle
European Corn Borer (Ostrinia nubilalis) 1st Generation (Typically Whorl Leaf Feeding) 2nd Generation (Typically Leaf Sheath-Collar Feeding) Stalk Tunneling : cm tunneled/plant	European Corn Borer1st Generation2nd Generation
Fall Armyworm (Spodoptera frugiperda) Leaf-Feeding Silk-Feeding: mg larval wt.	Fall Armyworm Leaf Feeding
Maize Weevil (Sitophilus zeamaize) Northern Rootworm (Diabrotica barberi) Southern Rootworm (Diabrotica undecimpunctata)	Maize Weevil Northern Rootworm Southern Rootworm
Southwestern Corn Borer (<i>Diatraea grandiosella</i>) Leaf Feeding Stalk Tunneling: cm tunneled/plant	Southwestern Corn Borer Leaf Feeding
Two-spotted Spider Mite (<i>Tetranychus urticae</i>) Western Rootworm (<i>Diabrotica virgifera virgifera</i>) Other (Specify)	Two-spotted Spider Mite Western Rootworm Other (Specify)
12. AGRONOMIC TRAITS:	
8 Stay Green (at 65 days after anthesis) (Rate on a scale from 1=worst to 9=excellent.)	1 Stay Green
0 0 . 0 % Dropped Ears (at 65 days after anthesis)	0 0 . 1 % Dropped ears
0 0 .0 % Pre-anthesis Brittle Snapping	0 0 . 0 % Pre-anthesis Brittle Snapping
0 0. 0 % Pre-anthesis Root Lodging	0 0 . 0 % Pre-anthesis Root Lodging
0 0. 0 % Post-anthesis Root Lodging (at 65 days after anthesis)	0 0 . 0 % Post-anthesis Root Lodging
Kg/ha Yield of Inbred Per Se (at 12-13% grain moisture)	Yield
13. MOLECULAR MARKERS: (0=data unavailable; 1=data available but not supplied; 2=data supplied)	
0 Isozymes 0 RFLP's 0 RAPD'sOther (Specify)	
REFERENCES:	
Butler, D.R. 1954. A System for the Classification of Corn Inbred Lines. PhD Thesis, Ohio State University. Emerson, R.A., G.W. Beadle, and A.C. Fraser. 1935. A Summary of Linkage Studies in Maize. Cornell A.E.S., Mem. 180 Farr, D.F., G.F. Bills, G.P. Chamuris, A.Y. Rossman. 1989. Fungi on Plant and Plant Products in the United States. The Inglett, G.E. (Ed.) 1970. Corn: Culture, Processing, Products. Avi Publishing Company, Westport, C.T. Jugenheimer, R.W. 1976. Corn: Improvement, Seed Production, and Uses. John Wiley & Sons, New York. McGee, D.C. 1988. Maize Diseases. APS Press, St. Paul, MN. 150 pp. Munsell Color Chart for Plant Tissues. Macbeth. P.O. Box 230. Newburgh, N.Y. 12551-0230 The Mutants of Maize. 1968. Crop Science Society of America. Madison, WI. Shurtleff, M.C. 1980. Compendium of Corn Diseases. APS Press, St. Paul, MN. 105 pp. Sprague, G.F., and J.W. Dudley (Editors). 1988. Corn and Corn Improvement, Third Edition. Agronomy Monograph 18. A Stringfield, G.H. Maize Inbred Lines of Ohio. Ohio A.E.S., Bul. 831. 1959. U.S. Department of Agriculture. 1936, 1937. Yearbook.	American Phytopathological Society, St. Paul, MN.
COMMENTS (e.g. state how heat units were calculated, standard inbred seed source, and/or where data was collected.	Continue in Exhibit D):
Heat Unit Calculation: GDU = <u>Daily Max Temp (<=86°F) + Daily Min Temp (>=50°F)</u>	- 50°F
Supplemental data provided for pollen shed, ear weight, % round kernels and weight per 100 kernels from inventory data. Supplemental data of quantitative traits for subject corn variety 'LH390' provided from 200 data.	2006 production parent test data and 2006 seed 6 and 2007 seed inventory and production parent test

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REPRODUCE LOCALLY Include form number and edition date on , U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE	Application is required in order to:del	FORM APPROVED - OMB No. 0581-00 profine if a plant variety protection
EXHIBIT E STATEMENT OF THE BASIS OF OWNERSHIP	cartificate is to be issued (7 U.S.C. 2 confidential until the certificate is issu	421). The information is new red (7 U.S.C. 2426).
1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION	3. VARIETY NAME
Holden's Foundation Seeds L.L.C.	OR EXPERIMENTAL NUMBER	LH390
4. ADDRESS (Street Grantis), ec.6.7.0; Me., Chy. Static, and ZIP. and Country)	5: TELEPHONE (initial/area code)	6: FAX (Include anto code)
8350 Minnegan Road	(815) 758-9281	(815) 758-3117
Waterman, IL 60556 U.S.A.	7. PVPO NUMBER	
	1	200600018
9. Is the applicant (individual or company) a U.S. National or a U.S.	hazada waxa Marabaya a fa	
a. Is the applicant (more dual of company) a c.s. National or a c.s.	based company? If no, give name of c	ountry X YES NO
10. Is the applicant the original owner? X YES NO	If no, please answer one of the fol	lowing:
a lifeting pulmingly with the description of the second state of t	() () () ()	
a. If the original rights to variety were owned by individual(s), is		al(s)?
YES NO	If no, give name of country	
b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. bas	sed company?
YES NO	If no, give name of country	est.
1. Additional explanation on ownership (If needed, use the reverse	for extra space):	
Corn Variety I H300 was originated and do	veloped by a breeder employed b	v Holden's
Foundation Seeds, L.L.C. By agreement be breeder, all rights to any invention, discover Foundation Seeds, L.L.C. No rights to such the breeder.	etween Holden's Foundation See ry or development are assigned to	ds, L.L.C. and the o Holden's
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Foundation Seeds, L.L.C. By agreement be breeder, all rights to any invention, discover Foundation Seeds, L.L.C. No rights to such the breeder. PLEASE NOTE: Plant variety protection can only be afforded to the owners (not licentally and the rights to the variety are owned by the original breeder, that protection and of a country which affords similar protection to nationals of a lift the rights to the variety are owned by the company which employed nationals of a UPOV member country, or owned by nationals of a	etween Holden's Foundation See by or development are assigned to in invention, discovery or development asses) who meet the following criteria: berson must be a U.S. national, national of the U.S. for the same genus and speci- oyed the original breeder(s), the company country which affords similar protection to	ds, L.L.C. and the Discourse Holden's ment are retained by of a UPOV member country, or es.

response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information,

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U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY PLANT VARIETY PROTECTION OFFICE BELTSVILLE, MD 20705

EXHIBIT F

NAME OF OWNER (S)	ADDRESS (Street and Manager II) No. Old. Out.	
	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country)	TEMPORARY OR EXPERIMENTAL DESIGNATION
Holden's Foundation Seeds LLC	8350 Minnegan Road, Waterman, IL 60556 USA	
		VARIETY NAME
		LH390
NAME OF OWNER REPRESENTATIVE (S)	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country)	FOR OFFICIAL USE ONLY
Timothy R. Kain	8350 Minnegan Road, Waterman, IL 60556 USA	PVPO NUMBER
		2006 00018

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.

3/17/2008